FIG. **3**D shows a cross-sectional view of a floating contact coupled with DC shield **214** by way of flexible PCB **212** in accordance with section line A-A. Section line A-A runs across a central portion of the floating contact and consequently magnetic shunt **210** runs across a diameter of electrical contact **206**. In this way magnetic shunt **210** can be well positioned to prevent a magnetic field emitted by magnet **208** from extending towards DC shield **214** and into the accessory device.

FIG. **3**E shows a cross-sectional view of another floating contact coupled with DC shield **214** by way of flexible PCB **212** in accordance with section line B-B. In FIG. **3**E tails **302** of electrical contacts **206** are depicted extending all the way to solder pads **308**. In this way electrical traces on flexible PCB **212** can be electrically coupled to electrical contact **206** by way of solder pads **308** and tails **302**. This allows ground, power or data to pass through electrical contact **206** and over to another electrical device, while bypassing magnet **208** and magnetic shunt **210**. Although a particular configuration of four pads and essentially two rings of the spiral attachment features are depicted the spirals and solder pads can be arranged in many other ways and in many other configurations. For example, in some embodiments when a longer floating contact travel is desired flexible PCB **212** can include three or four spirals or rings allowing flexible attachment features **306** to accommodate a much longer range of travel. Similarly, in some embodiments, electrical contacts **206** may only include three feet soldered to three solder pads of outer ring **306***a* of attachment feature **306**.

FIGS. **4**A-**4**B show recessed and engaged positions of connector **200**. FIG. **4**A shows how a magnetic force **404** acts between magnet **208** of connector **200** and magnet **402** of the electronic device **400**. In FIG. **4**A magnet **402** is too far away to overcome the magnetic force **406** that operates between DC shield **214** and magnet **208**. FIG. **4**B shows how once electrical device **400** and particularly magnet **402** get close enough to magnet **208** magnetic force **404** becomes large enough to overcome magnetic force **406**. FIG. **4**B also shows the spiral configuration assumed by attachment feature **306** of flexible PCB **212**, which accommodates the floating contacts movement into the engaged position. As depicted, portions of flexible attachment feature **306** (i.e. inner ring **306***b*) deform to accommodate the motion of the floating contact towards electronic device **400**. Once electronic device **400** engages connector **200**, electrical contact **408** of electronic device **400** becomes electrically coupled with electrical contact **206**. It should be noted that while electrical contact is shown as having a convex geometry the geometry can alternatively be concave to match a geometry of electrical contact **408**. It should also be noted that electronic device **400** can have multiple electrical contacts **408**. One electrical contact **408** corresponds to each of electrical contacts **206** of connector **200**. In some embodiments, where electrical contact **206** sticks out past a mating surface defined by protective cover **202** the magnetic coupling may push electrical contact **206** back slightly into connector **200** so that an exterior surface of electronic device **400** can also contact the curved surface defined by protective cover **202**.

Pogo Pin Embodiments:

FIGS. **5**A-**5**B show pogo pins configured to electrically couple with another electrical contact. FIG. **5**A shows a pogo pin **500** with a spring **502** embedded within housing **504**. Spring **502** is configured to allow electrical contact **506** to retract into housing **504** of pogo pin **500**. Pogo pin **500** can also include spring coupling device **508**, which includes a protrusion for mating with spring **502**. The convex surface of spring coupling device **508**, which contacts electrical contact **506**, is designed to encourage misalignment of spring coupling device **508** and electrical contact **506**. This misalignment results in electrical contact **506** being pressed against an interior-facing surface of housing **504**. The electrical contact between electrical contact **506** and housing **504** allows electricity and/or data to be transferred from electrical contact **506** to housing **504** and then out of pogo pin **500** entirely by way of electrically conductive pathway **510**. Electrically conductive pathway **510** can take the form of one or more wires that carry the power and/or signals to another electrical component for further processing. In some embodiments, multiple pogo pins **500** can be used in a single connector to carry different power levels and signal types. It should be noted that the misalignment created by spring coupling device **508** that establishes a solid connection between electrical contacts **506** and housing **504** prevents the unfortunate situation in which electrical contact **506** remains axially aligned with spring **502** and not in significant contact with housing **504**. In the aforementioned axial alignment situation, electricity could be forced to travel through spring **502**, and since spring **502** is not designed to carry electricity the risk of a short circuit and/or damage to the spring increases substantially. The spring shape of spring **502** can also add unwanted inductance to any signal transmitted through spring **502**. It should also be noted that assembly of pogo pin **500** involves inserting the internal components of pogo pin **500** through a front opening defined by housing **504**.

FIG. **5**B shows a pogo pin **550** and how a housing **552** of pogo pin **550** can be formed from front housing component **552** and rear housing component **554**. This configuration allows insertion of internal components of pogo pin **550** through a rear facing opening of front housing component **552**. In such a configuration a front opening defined by front housing component **552** can be a rigid opening that need not be configured to accept internal components. Instead the internal components can be inserted through the rear facing opening defined by front housing component **552**. A portion of front housing component **552** can be swaged to produce an annular protrusion configured to engage an annular recess defined by rear housing component **554**. The complementary recess and protrusion allows a straight forward fastener-free coupling between front housing component **552** and rear housing component **554**. Because the internal components don't need to be inserted through the front opening of front housing component **552**, the front opening through which electrical contact **506** extends can be substantially more rigid, thereby reducing the likelihood of electrical contact **506** inadvertently passing through the front opening.

FIGS. **6**A-**6**C show cross-sectional side views of pogo pins with integrated movable magnets. FIG. **6**A shows a cross-sectional side view of a pogo pin **600** having an integrated movable magnet **602**. Movable magnet **602** is positioned within an interior volume defined by front housing component **604** and rear housing component **606**. The interior volume can take the form of a channel along which movable magnet **602** can pass. Movable magnet **602** is coupled to spring coupling device **608**, which includes a protrusion that engages one end of spring **610**. When an external magnetic field exerts a force upon movable magnet **602** directed towards electrical contact **612**, movable magnet **602** slides along the channel to compress spring **610** against a rear-facing surface of electrical contact **612**. In this way, movable magnet **602** can be used to augment the force provided by spring **610** when pogo pin **600** is exposed to the external magnetic field.